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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,992	04/08/2004	Michael A. Keith	4735	9045

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EXAMINER	
PARSLEY, DAVID J	

ART UNIT	PAPER NUMBER
3643	

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/820,992	KEITH ET AL.	
	Examiner	Art Unit	
	David J. Parsley	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4-8-04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4/2, 5/2, 6/2, 7/2, 8/2, 9/2, 10/2, 11/2, 12/2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the body" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4/1, 5/1, 6/1, 8/1 and 9/1 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,450,795 to Adelman.

Referring to claim 1, Adelman discloses a less lethal projectile comprising, a hollow body container – at the combination of 10,15,26,30, having a closed front end – at 26, and an

open rear end – at the rear of 30, filled with a high density filler – at 20, a closure – see at the bottom of item 30 in figure 5, to seal the open rear end of the hollow body container to seal the filler in the container – see for example figure 5, a bore rider stabilizer – at 25, attached to the rear of the closure – see for example figure 5, the bore-rider stabilizer comprising a fabric having a low coefficient of friction – see for example column 3 lines 46-66.

Referring to claim 4/1, Adelman discloses the body is made of a woven fabric, plastic or rubber – see for example column 3 lines 6-20.

Referring to claim 5/1, Adelman discloses the high density filler – at 20, comprises steel, lead or ceramic shot, silica beads, metal beads, metal powder or mixtures thereof – see for example column 3 lines 21-45.

Referring to claim 6/1, Adelman discloses the high-density filler is contained within a frangible pouch or capsule or formed into a pellet – see for example figure 5 and column 3 lines 7-45.

Referring to claim 8/1, Adelman discloses the bore rider stabilizer – at 25, comprises a plurality of tail lobes – at 25 – see for example figure 5.

Referring to claim 9/1, Adelman discloses the bore rider stabilizer is a single layer of material made of high density polyethylene, ultra high molecular weight polyethylene, polytetrafluorethylene coated glass cloth or 3-5 mil polyester – see for example column 3 lines 46-66.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4/2, 5/2, 6/2, 8/2, 9/2 and 12/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,655,294 to Kerr in view of Adelman.

Referring to claim 2, Kerr discloses a less lethal projectile comprising a finger shaped woven fabric container – at 15-16, 22, 24-25, 33, 36, having a closed end and an open end – see for example figures 1-4, the container filled with a high-density filler – at 23, a spool closure – at 28, which fits inside of the open end of the fabric container – see figure 4, a sealer – at 34-1, 34-2, which fits tightly around the spool closure to seal the filler in the container – see for example figures 2-5. Kerr does not disclose a bore-rider stabilizer attached to the rear of the closure, the bore rider stabilizer comprising a fabric having a surface with a low coefficient of friction. Adelman does disclose a bore-rider stabilizer – at 25, attached to the rear of the closure – see figure 5, the bore rider stabilizer comprising a fabric having a surface with a low coefficient of friction – see for example column 3 lines 46-66. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Kerr and add the bore stabilizer of Adelman, so as to allow for the impact force of the projectile to be transferred over an increased area.

Referring to claim 4/2, Kerr as modified by Adelman further discloses the body – at 15-16, 22, 24-25, 33, 36, of Kerr or at – 10,15,26,30 of Adelman, is made of a woven fabric, plastic or rubber – see for example column 4 lines 35-67 of Kerr and see for example column 3 lines 6-20.

Referring to claim 5/2, Kerr as modified by Adelman further discloses the high density filler comprises steel, lead or ceramic shot, silica beads, metal beads, metal powder or mixtures thereof – see for example at 23 and column 4 lines 35-51 and at 20 and column 3 lines 21-45 of Adelman.

Referring to claim 6/2, Kerr as modified by Adelman further discloses the high density filler is contained within a frangible pouch or capsule or formed into a pellet – see at 28 of Kerr and see – at 26 of Adelman.

Referring to claim 8/2, Kerr as modified by Adelman further discloses the bore rider stabilizer – at 25 of Adelman comprises a plurality of tail lobes – see for example figure 5 of Adelman.

Referring to claim 9/2, Kerr as modified by Adelman further discloses the bore rider stabilizer is a single layer of material made of high density polyethylene, ultra high molecular weight polyethylene, polytetrafluorethylene coated glass cloth or 3-5 mil polyester – see for example column 3 lines 46-66 of Adelman.

Referring to claim 12/2, Kerr as modified by Adelman further discloses a fabric container – at 15-16, 22, 24-25, 33, 36, having a loose weave, which allows radial expansion upon impact – see for example column 4 lines 35-67 of Kerr.

Claims 3, 4/3, 5/3, 6/3, 8/3, 9/3 and 12/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunn et al. in view of Adelman.

Referring to claim 3, Brunn et al. discloses a less lethal projectile comprising a fabric body container – at 32,46,48, having a closed front end and an open rear end – see for example figure 2, filled with a high-density filler – at 42, a spool – at 50, having a hole through it – see for

example figures 3-3b, through which to pass the rear end of the fabric body – see for example figures 3a-3b, and an adhesive – at 44, to seal the rear end of the fabric in the hole of the spool – see for example figures 3-3b. Brunn et al. does not disclose a bore rider stabilizer attached to the rear of the closure, the bore rider stabilizer comprising a fabric having a low coefficient of friction. Adelman does disclose a bore-rider stabilizer – at 25, attached to the rear of the closure – see figure 5, the bore rider stabilizer comprising a fabric having a surface with a low coefficient of friction – see for example column 3 lines 46-66. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brunn et al. and add the bore stabilizer of Adelman, so as to allow for the impact force of the projectile to be transferred over an increased area.

Referring to claim 4/3, Brunn et al. as modified by Adelman further discloses the body – at 32 of Brunn et al. or – at 10,15,26,30 of Adelman, is made of a woven fabric, plastic or rubber – see for example column 2 lines 49-60 of Brunn et al. and column 3 lines 6-20.

Referring to claim 5/3, Brunn et al. as modified by Adelman further discloses the high density filler comprises steel, lead or ceramic shot, silica beads, metal beads, metal powder or mixtures thereof – see at 42 and column 2 lines 48-60 of Brunn et al. and at – 20 and column 3 lines 21-45.

Referring to claim 6/3, Brunn et al. as modified by Adelman further discloses the high density filler is contained within a frangible pouch or capsule or formed into a pellet – see for example at 32 of Brunn et al. and – see for example figure 5 and column 3 lines 7-45 of Adelman.

Referring to claim 8/3, Brunn et al. as modified by Adelman further discloses the bore rider stabilizer – at 25 of Adelman comprises a plurality of tail lobes – see for example figure 5 of Adelman.

Referring to claim 9/3, Brunn et al. as modified by Adelman further discloses the bore rider stabilizer is a single layer of material made of high density polyethylene, ultra high molecular weight polyethylene, polytetrafluorethylene coated glass cloth or 3-5 mil polyester – see for example column 3 lines 46-66 of Adelman.

Referring to claim 12/3, Brunn et al. as modified by Adelman further discloses a fabric container – at 32, having a loose weave, which allows radial expansion upon impact – see for example column 2 lines 49-60 of Brunn et al.

Claim 12/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adelman as applied to claim 1 above, and further in view of Brunn et al. Adelman does not disclose a fabric container having a loose weave, which allows radial expansion upon impact. Brunn et al. does disclose fabric container – at 32, having a loose weave, which allows radial expansion upon impact – see for example column 2 lines 49-60. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Adelman and add the fabric container of Brunn et al., so as to allow for the device to be made non-lethal.

Claim 7/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adelman as applied to claim 1 above, and further in view of U.S. Patent No. 5,898,125 to Mangolds et al. Adelman does not disclose the closure comprises a round, drum shaped body having a hole in the center and a circumferential groove. Mangolds et al. does disclose the closure – at 71-74, comprises a round, drum shaped body – see figure 4, having a hole in the center – see figure 4

and a circumferential groove – see proximate 26,36 and 54 in figure 4. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Adelman and add the closure structure of Mangolds et al., so as to allow for the projectile to be securely held in the cartridge.

Claim 7/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr as modified by Adelman as applied to claim 2 above, and further in view of U.S. Patent No. 5,898,125 to Mangolds et al. Kerr as modified by Adelman does not disclose the closure comprises a round, drum shaped body having a hole in the center and a circumferential groove. Mangolds et al. does disclose the closure – at 71-74, comprises a round, drum shaped body – see figure 4, having a hole in the center – see figure 4 and a circumferential groove – see proximate 26,36 and 54 in figure 4. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Kerr as modified by Adelman and add the closure structure of Mangolds et al., so as to allow for the projectile to be securely held in the cartridge.

Claim 7/3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunn et al. as modified by Adelman as applied to claim 3 above, and further in view of U.S. Patent No. 5,898,125 to Mangolds et al. Brunn et al. as modified by Adelman does not disclose the closure comprises a round, drum shaped body having a hole in the center and a circumferential groove. Mangolds et al. does disclose the closure – at 71-74, comprises a round, drum shaped body – see figure 4, having a hole in the center – see figure 4 and a circumferential groove – see proximate 26,36 and 54 in figure 4. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brunn et al. as modified by Adelman and add the closure structure of Mangolds et al., so as to allow for the projectile to be securely held in the cartridge.

Claim 10/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adelman as applied to claim 1 above, and further in view of Mangolds et al. Adelman does disclose a first fabric layer – at 25. Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements.

Claim 10/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr as modified by Adelman as applied to claim 2 above, and further in view of Mangolds et al. Kerr as modified by Adelman discloses a first fabric layer – at 25 of Adelman. Kerr as modified by Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Kerr as modified by Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements.

Claim 10/3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunn et al. as modified by Adelman as applied to claim 3 above, and further in view of Mangolds et al. Brunn et al. as modified by Adelman discloses a first fabric layer – at 25 of Adelman. Brunn et al. as modified by Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose

two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brunn et al. as modified by Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements.

Claim 11/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adelman as applied to claim 1 above, and further in view of Mangolds et al. Adelman does disclose a first fabric layer – at 25, made of a high density polyethylene or ultra high molecular weight polyethylene – see for example column 3 lines 46-66. Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements. Adelman as modified by Mangolds et al. does not disclose the second layer is made of a polyester film or cellulose acetate. However, this limitation is a characteristic found through experimentation and therefore it would have been obvious to one of ordinary skill in the art to take the device of Adelman as modified by Mangolds et al. and add the second layer made of a polyester film or cellulose acetate, so as to allow for the device to be protected from outside elements.

Claim 11/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr as modified by Adelman as applied to claim 2 above, and further in view of Mangolds et al. Kerr as

modified by Adelman further discloses a first fabric layer – at 25, made of a high density polyethylene or ultra high molecular weight polyethylene – see for example column 3 lines 46-66 of Adelman. Kerr as modified by Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Kerr as modified by Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements. Kerr as modified by Adelman and Mangolds et al. does not disclose the second layer is made of a polyester film or cellulose acetate. However, this limitation is a characteristic found through experimentation and therefore it would have been obvious to one of ordinary skill in the art to take the device of Kerr as modified by Adelman and Mangolds et al. and add the second layer made of a polyester film or cellulose acetate, so as to allow for the device to be protected from outside elements.

Claim 11/3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunn et al. as modified by Adelman as applied to claim 3 above, and further in view of Mangolds et al. Brunn et al. as modified by Adelman further discloses a first fabric layer – at 25, made of a high density polyethylene or ultra high molecular weight polyethylene – see for example column 3 lines 46-66 of Adelman. Brunn et al. as modified by Adelman does not disclose the bore-rider stabilizer comprises two layers, a first fabric layer and a second layer having a low coefficient of friction. Mangolds et al. does disclose two layers – at 34 and 76, a first fabric layer – at 34 and a second layer – at 76, having a low coefficient of friction – see for example column 5 lines 17-55.

Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brunn et al. as modified by Adelman and add the two layers of Mangolds et al., so as to allow for the device to be protected from outside elements. Brunn et al. as modified by Adelman and Mangolds et al. does not disclose the second layer is made of a polyester film or cellulose acetate. However, this limitation is a characteristic found through experimentation and therefore it would have been obvious to one of ordinary skill in the art to take the device of Brunn et al. as modified by Adelman and Mangolds et al. and add the second layer made of a polyester film or cellulose acetate, so as to allow for the device to be protected from outside elements.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to non-lethal projectiles in general:

U.S. Pat. No. 3,733,727 to Jones et al. – shows non-lethal projectile

U.S. Pat. No. 3,771,459 to Lohnstein – shows non-lethal projectile

U.S. Pat. No. 3,771,460 to Ayer – shows non-lethal projectile

U.S. Pat. No. 3,906,859 to Smith – shows non-lethal projectile

U.S. Pat. No. 4,008,667 to Look – shows bore stabilizer

U.S. Pat. No. 4,986,185 to Kuhnle et al. – shows bore stabilizer

U.S. Pat. No. 5,235,915 to Stevens – shows non-lethal projectile

U.S. Pat. No. 6,209,461 to Riffet et al. – shows bore stabilizer

U.S. Pat. No. 6,308,632 to Shaffer – shows bore stabilizer

U.S. Pat. No. 6,820,560 to Romppanen – shows cloth/fabric projectile

EP Pat. No. 0488911 – shows non-lethal projectile

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on Monday-Friday from 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DP

David Parsley
Patent Examiner
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PETER M. POON
SUPERVISORY PATENT EXAMINER

11/4/06